## AMENDMENTS TO THE CLAIMS

**This listing of claims will replace all prior versions and listings of claims in the application:**

### LISTING OF CLAIMS:

1.     (original):  Method for routing a Radio Resource Control message (RRC), previously sent by a terminal on the common control channel CCCH of a cell, from the Cell Control (CC) being responsible for controlling functions related to a particular cell and for terminating control channels associated with said cell and said Cell Control being associated to said cell to a Mobile Control (MC)of a distributed Radio Network Controller equipment of a Radio Access Network to which the terminal is associated, wherein said mobile control is dynamically created when a new signaling connection known as radio resource control RRC connection is established for a particular user, the method comprising the steps of:

1a)     Previously establishing a Radio Resource Control communication between the terminal and the Radio Access Network resulting in that the Mobile Control is instantiated and both said Mobile Control and the terminal are configured with the identifier USER-ID, as well as the identifier PP&B-ID of a parent paging and broadcasting associated to the Mobile Control, these identifiers being used to uniquely identify a terminal in further Radio Resource Control RRC messages;

1b)     Sending the Radio Resource Control message from the terminal via a Common Control Channel of the cell where the terminal is located to a Cell Control associated to said cell within said distributed Radio Access Network;

1c)     Forwarding the message from the Cell Control to the paging and broadcast associated to said Cell Control; and

1d)     Forwarding the message from the paging and broadcast to the Mobile Control identified by the USER-ID in the case that the paging and broadcast associated to the cell corresponds to the parent paging and broadcast.

2.     (original):  Method according to claim 1, characterized in that alternatively in step 1c) the message is forwarded from the paging and broadcast being associated to the cell via the parent paging and broadcast identified by the SRNC-ID comprised within said message to the Mobile Control (MC) in the case that the paging and broadcast (P&B) does not correspond to the parent paging and broadcast (steps 1c-1), 1c-2)).

3.     (currently amended):  Method according to claim 1-or-2, characterized in that step 1a) comprises the following steps:

a1)     Sending the RRC-message from the terminal via the Common Control Channel (CCCH) to the Cell Control (CC) of the cell where the terminal is located;

a2)     Notifying the paging and broadcast (P&B) associated to the Cell Control (CC) about the received RRC-message;

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a3)     Instantiating the Mobile Control (MC) by the paging and broadcast (P&B), which

becomes the parent paging and broadcast (PP&B) associated to the Mobile Control;

a4)     Allocating the USER-ID identifying both the terminal and the Mobile Control

(MC) by the parent paging and broadcast (PP&B);

a5)     Storing the USER-ID and a transport address of Mobile Control (MC) by the

parent paging and broadcast (PP&B);

a6)     Transmitting the USER-ID of the Mobile Control (MC) as well as the PP&B-ID

and the transport address both of the parent paging and broadcast (PP&B) to the Mobile Control

(MC); and

a7)     Sending a confirmation message comprising the USER-ID of the Mobile Control

(MC) and the PP&B-ID within the pre-existing fields S-RNTI and SRNC-ID from the

instantiated Mobile Control (MC) to the terminal.


4.     (original):  Method for routing a message from a Mobile Control being

dynamically created when a new signaling connection known as radio Resource Control RRC

Connection is established for a particular user, to a Cell Control of a particular cell addressed in

said message wherein said Cell Control terminates controlled channels associated with said cell

and wherein both the Mobile Control and the Cell Control representing functional entities within

a distributed Radio Network Controller of a Radio Access Network, the method comprising steps

of:

4a) Previously establishing the Radio Resource Control connection resulting in that the Mobile Control is instantiated and is aware of a USER-ID identifying itself and its associated terminal, and a PP&B-ID and the transport address of its associated parent paging and broadcast, and the terminal is also made aware of both said USER-ID and PP&B-ID by sending them in the pre-existing fields S-RNTI and SRNC-id of the Radio Resource Control message sent by the network to complete the connection establishment;

4b) Sending the message containing the USER-id and the PP&B-id of the Mobile Control and its associated parent paging and broadcast, and further including the Cell-ID of the addressed cell and the P&B-ID of the paging and broadcast associated to said addressed cell from the Mobile Control to the parent paging and broadcast identified by its P&B-ID and transport address previously known by the Mobile Control;

4c) Forwarding the message from the parent paging and broadcast to the Cell Control addressed by the message; and

4d) Sending the message to the addressed terminal directly on the common control channel CCCH of the associated cell.


5. (original): Method according to claim 4, characterized in that alternatively in step 4c) the message is forwarded from the parent paging and broadcast (PP&B) via the paging and broadcast (P&B) associated to the addressed Cell Control (CC) and identified by the corresponding P&B-ID to said Cell Control (CC) in the case that the parent paging and broadcast

(PP&B) does not correspond to the paging and broadcast associated to the Cell Control

addressed by the message.

6.     (currently amended): Method according to ~~one of claims 4 or 5~~claim 4,

characterized in that in step 4d) the message is sent directly to all terminals within said cell and is

addressed to a specific one of said terminals by filling the pre-existing fields the SRNC-ID and

the S-RNTI included in the message with the PP&B-id identifying the parent paging and

broadcast and the USER-ID identifying both the Mobile Control and the terminal.

7.     (currently amended): Method according to ~~one of claims 4-6~~claim 4,

characterized in that step 4a) comprises the following steps:

a1)     Sending the RRC-message from the terminal via the Common Control Channel

(CCCH) to the Cell Control (CC) of the cell where the terminal is located;

a2)     Notifying the paging and broadcast (P&B) associated to the Cell Control (CC)

about the received RRC-message;

a3)     Instantiating the Mobile Control (MC) by the paging and broadcast (P&B), which

becomes the parent paging and broadcast (PP&B) associated to the Mobile Control;

a4)     Allocating the USER-ID identifying both the terminal and the Mobile Control

(MC) by the parent paging and broadcast (PP&B);

a5)     Storing the USER-ID and a transport address of Mobile Control (MC) by the

parent paging and broadcast (PP&B);

a6)     Transmitting the USER-ID of the Mobile Control (MC) as well as the PP&B-ID

and the transport address both of the parent paging and broadcast (PP&B) to the Mobile Control

(MC); and

a7)     Sending a confirmation message comprising the USER-ID of the Mobile Control

(MC) and the PP&B-ID within the pre-existing fields S-RNTI and SRNC-ID from the

instantiated Mobile Control (MC) to the terminal.


8.      (currently amended):  A distributed Radio Network Control (RNC) equipment

comprising a Mobile Control (MC), a paging and broadcast (P&B) and a Cell Control as

functional entities, characterized in that these functional entities are embodied in different

network elements and communicate with each other according to the methods claimed in ~~claims~~

~~1 or 7~~claim 1.


9.      (original):  A Radio Access Network (RAN) characterized in that it comprises at

least one distributed Radio Network Control (RNC) according to claim 8.


10.     (original):  A core network (CN) characterized in that it comprises at least one

Radio Access Network (RAN) according to claim 9.

11.     (currently amended):  Distributed server platform for an RNC or RAN running dedicated software including code means being adapted to carry out the methods claimed by ~~claims 1 or 7~~claim 1.

12.     (currently amended):  Computer program for a distributed RNC or RAN including code means being adapted to carry out the methods claimed by ~~claims 1 or 7~~claim 1.